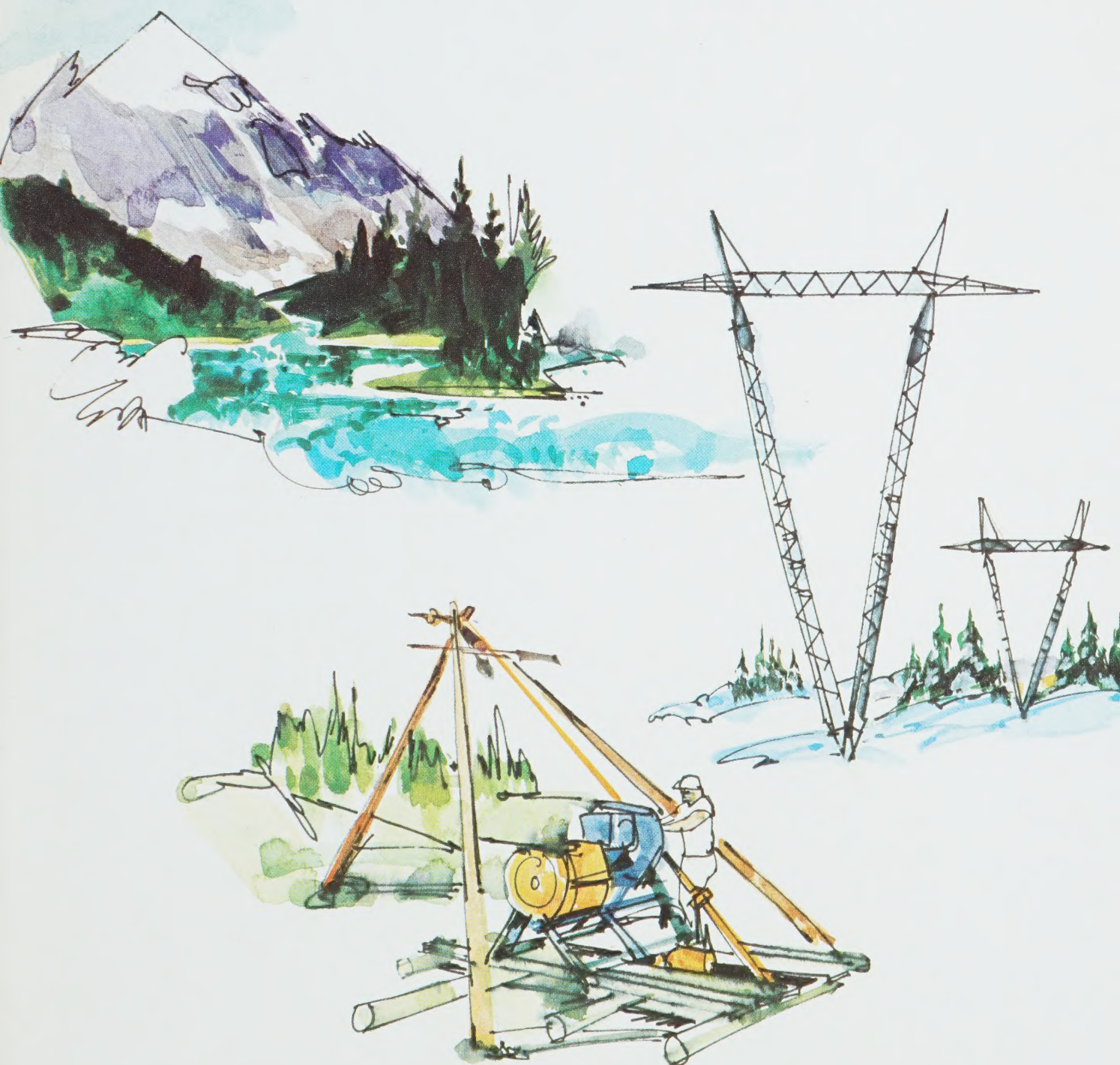


# Annual Report 1971





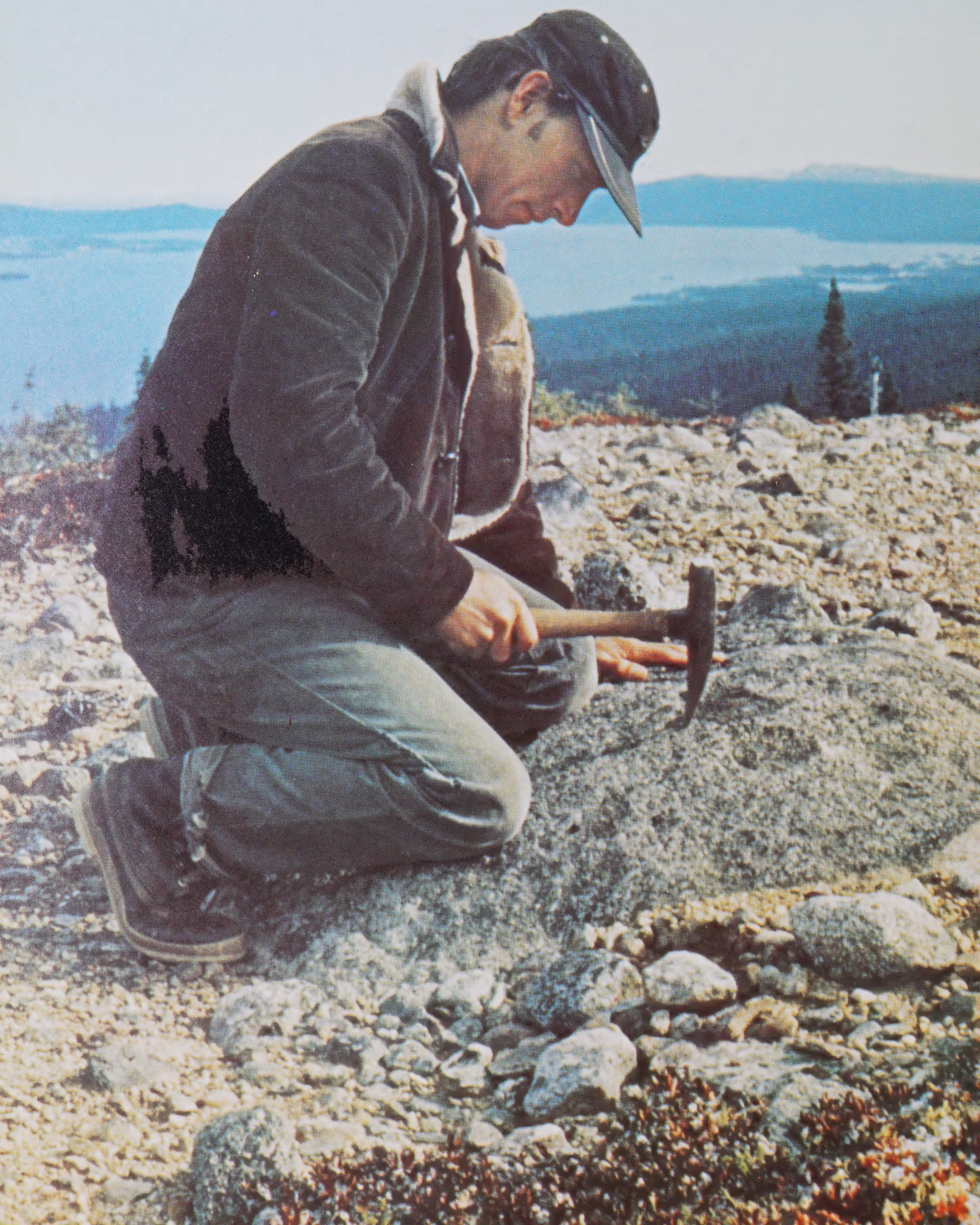




# Annual Report 1971



Geologist's assistant Eric Andersen, a resident of Makkovik, Labrador, chips away at surface rocks in an area where ground surveys have shown geophysical anomalous conditions.





## Officers

Chairman:  
ROBERT D. MULHOLLAND

President and Chief Executive Officer:  
WILLIAM D. MULHOLLAND

Executive Vice-President:  
H. W. MACDONELL, Q.C.

Vice-President:  
R. C. BERRY, C.A.

Vice-President:  
H. L. SNYDER, P. Eng.

Comptroller:  
W. E. BRADFORD, C.G.A.

General Counsel:  
N. M. PETERS

Secretary:  
G. R. DEVEY, C.A.

Treasurer:  
M. C. BURNES, C.A.

## Directors

ROBERT D. ARMSTRONG,  
Toronto, Ontario  
President, Rio Algom Mines Limited

\*HENRY BORDEN, S.M., C.M.G., Q.C.  
Toronto, Ontario  
Former Chairman, Brinco Limited

THE HON. MAURICE BOURGET, P.C.,  
Lévis, Quebec  
Member of the Senate of Canada

BERNARD D. BROEKER,  
Bethlehem, Pa., U.S.A.  
Executive Vice-President, Bethlehem Steel Corporation

PAUL DESMARAIS,  
Montreal, Quebec  
Chairman and Chief Executive Officer  
Power Corporation of Canada Limited

\*SIR VAL DUNCAN, O.B.E.,  
London, England  
Chairman and Chief Executive,  
The Rio Tinto-Zinc Corporation Limited

G. PETER FLECK,  
New York, U.S.A.  
Chairman, New Court Securities Corporation

LEWIS W. FOY,  
Bethlehem, Pa., U.S.A.  
President, Bethlehem Steel Corporation

J. GEORGES-PICOT, K.B.E.,  
Paris, France  
Honorary Chairman,  
Compagnie Financière de Suez et de l'Union Parisienne

J.-P. GIGNAC, Eng.,  
Montreal, Quebec  
President & General Manager, Sidbec-Dosco

\*SAM HARRIS,  
New York, U.S.A.  
Senior Partner, Fried, Frank, Harris, Shriver & Jacobson

J. H. MOWBRAY JONES, D.Eng.,  
Montreal, Quebec

\*H. W. MACDONELL, Q.C.,  
Executive Vice-President,  
Brinco Limited;  
Vice-President,  
Churchill Falls (Labrador) Corporation Limited;  
President, British Newfoundland Exploration Limited

\*ROBERT D. MULHOLLAND,  
Montreal, Quebec  
Vice-Chairman, Bank of Montreal

\*WILLIAM D. MULHOLLAND,  
Montreal, Quebec  
President & Chief Executive Officer,  
Brinco Limited and Churchill Falls  
(Labrador) Corporation Limited;  
Chairman, British Newfoundland Exploration Limited

GORDON F. PUSHIE,  
St. John's, Newfoundland  
Industrial Consultant

EDMUND L. de ROTHSCHILD, T.D.,  
London, England  
Chairman, N. M. Rothschild & Sons Limited

H. GREVILLE SMITH, C.B.E.,  
Montreal, Quebec  
President, Canadian International Investment Trust Limited

ARTHUR S. TORREY,  
Montreal, Quebec

\*SIR MARK TURNER,  
London, England  
Deputy Chairman, Kleinwort Benson Lonsdale Ltd. and  
The Rio Tinto-Zinc Corporation Limited

*\*Member of the Executive Committee*

REGISTERED OFFICE  
Crosbie Place, St. John's, Newfoundland

EXECUTIVE OFFICE  
One Westmount Square,  
Montreal 216, Quebec

TRANSFER AGENT AND REGISTRAR  
The Royal Trust Company  
St. John's, Newfoundland;  
Montreal, Quebec; Toronto, Ontario

SHARES LISTED  
Montreal Stock Exchange  
Toronto Stock Exchange

*On peut obtenir le texte français de ce rapport auprès  
du service des Relations publiques, Brinco Limited,  
Un, Westmount Square, Montréal 216 (Québec).*

### Annual General Meeting

The Company will hold its Annual General Meeting on Thursday, April 20, 1972, at 11:00 a.m., Eastern Standard Time, in the Salon Duluth, The Queen Elizabeth Hotel, Montreal, Quebec.





Robert D. Mulholland, Chairman of Brinco Limited (*left*) and William D. Mulholland, President and Chief Executive Officer.

## ...from the President

Without doubt, the highlight of 1971 was the successful commissioning of Units 1 and 2 at the Churchill Falls power plant and the subsequent commencement in December of regular service from this plant. As a result, the accounts for the year 1971 include the first revenue from the sale of power generated at the Churchill Falls plant. The men and women of our organization, together with those of associated organizations, deserve the highest praise for this achievement which, as you know, did not come easily. If you had been able to share with me the privilege of association with these individuals, you would be convinced, as I am, that such results would not have been achieved without the deep sense of personal commitment and responsibility which has motivated so many of our people.

Without minimizing in any way the beneficial results achieved by fine planning and project management at all levels, it is quite clear to me that yet another factor has been present. This is revealed daily in hundreds of ways and without it we should be in a much less favorable position. In the Churchill Falls development, many men and women have viewed their involvement in the project as much more than just a job. For them, the Churchill Falls project has been not only a useful and important enterprise in





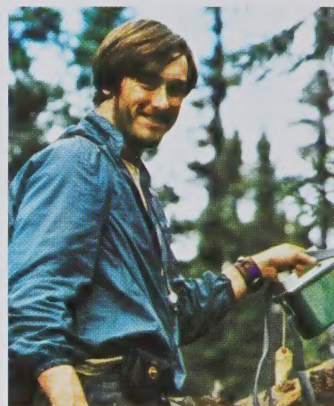
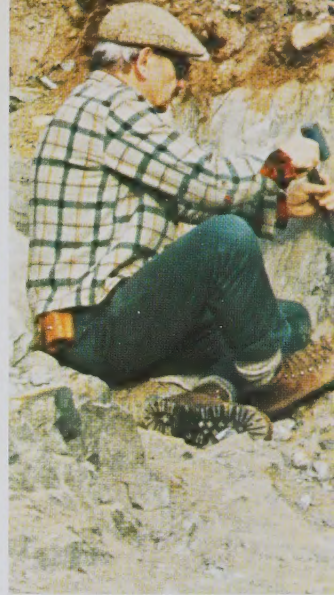
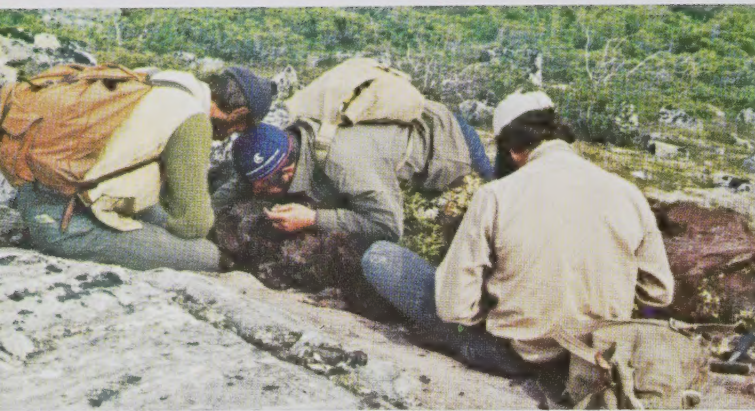
Members of Brinco Group management (left to right): vice-presidents Norbert M. Peters, Harold L. Snyder, William E. Bradford, Harry W. Macdonell and Robert C. Berry.

which they are participating, but also a joint endeavor to which their individual contributions were important. When, on December 6, power generated at the plant flowed for the first time on a continuous basis over the transmission lines, it was a rare moment of justifiable pride. It was also a time of deep personal satisfaction which perhaps provides greater incentive to constructive achievement and a more precious reward than any material gains, as necessary as they are.

The official inauguration of the Churchill Falls development will take place on June 16 of this year. This event will mark the transition of Churchill Falls from a great construction project to an operating utility. For over a year, members of the operations staff have been gathering at Churchill Falls for study and training in preparation for the operation of this gigantic facility. Theirs will be a demanding job, fully as demanding in its own way as that of the builders and planners who came before them. The task of keeping the various facilities comprising the development in good working order is in itself formidable. The 11 turbine-generator units, each one approximately nine stories high, are immensely complicated pieces of machinery which, with their sophisticated control and protective systems, require the services

*(continued on page 6)*



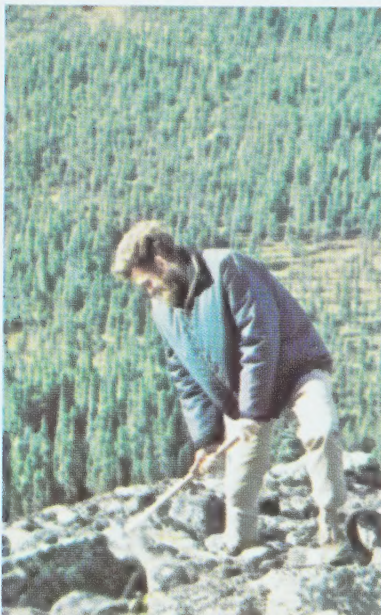


of highly skilled personnel. The same can be said of the 62-acre switchyard, with its forest of complex equipment suggestive of a futuristic dream; the 126-miles of 735 kV transmission lines; and, finally, the water storage facilities comprising six giant control structures and 88 dykes — more than 30 of which are listed in the register of the International Commission on Large Dams — stretching for 40 miles and impounding a total of 2,500 square miles of water.

The operation of these facilities is now a 24-hour-a-day, 365-day-a-year job requiring the highest skills, good judgment and coolness in the face of the emergencies which will inevitably occur. The operation of these vast facilities, necessitating constant monitoring of large quantities of data, has become so complex that the operators on duty have at their side an on-line computer to assist them in making the decisions upon which the comfort and well-being of so many others will depend. To these men, in their challenging and demanding task, we in the other arms of the company pledge our support, confident that the operating team, like the construction team, will set standards of performance of which we all can be proud.

After the turn of the year arrangements were concluded which will result in the advancement of





our construction schedules, with the object of accelerating the installation of generating capacity. Ultimately, we expect that this will result in an advance in the final completion date of the project by approximately one year. This has required a number of changes in construction schedules, particularly in the manufacturing schedules for the turbines and generators comprising Units 5 through 11. I should perhaps point out, however, that our ability to adhere to this revised schedule will depend to a very major extent upon the ability of our suppliers to deliver equipment in accordance with the revised schedules to which they have agreed. Our experience to date gives us confidence that they will continue to render the superior service which we have learned to expect from them.

As most shareholders will recall, the estimate of project direct construction costs (exclusive of interest, financing expenses, overhead, etc.) is \$665 million. Approximately 95 per cent has been contracted and is represented by work completed or contracts now in progress. Accordingly, it may be of interest to note that less than \$15 million of this large sum will have been spent by CFLCo upon procurement outside of Canada.

*(continued on page 8)*



While it is natural that attention should be concentrated on the very favorable progress at Churchill Falls, I would be remiss if I did not call the attention of the shareholders to the exceptionally fine work being carried out by our Brinex team. During the past year, without diminishing the pace of work upon areas of interest in Newfoundland, it has been successful in opening other doors to us elsewhere in Canada, with the result that our exploration program is becoming more broadly based than in the past. At the same time, we are in a position to offer our geologists, in the course of their careers, a greater variety of experience which cannot help but contribute to their professional development to the benefit of both themselves and the company.

With great regret, the directors and management faced the necessity this year of closing the Whales Back Mine near Springdale, Newfoundland. After a series of adverse developments over the past year that drastically impaired the economic viability of the mine and with the approaching exhaustion of mineable reserves, it became apparent that there was no choice except to order the closing, which was announced on February 8, to take place June 3. Every effort has been made to give the employees affected the maximum amount of advance notice of this development. A number of other steps have been taken by the company to cushion the impact but, notwithstanding these efforts, there is no doubt that it will be a severe blow to most of those affected. Accordingly, the company is making every effort to assist the men now employed at the mine in finding other employment.

Inside the back coverfold of this year's report, you will note a section devoted to activities related to the conservation of the natural environment, particularly in connection with the development at Churchill Falls. This is a subject in which many shareholders have evidenced interest, particularly following the publication last year of the booklet "The Land God Gave To Cain". In this report we have included a brief description of several programs which have been or are currently being carried

out in Labrador. While the space available does not permit a detailed discussion of these studies, any shareholder desiring specific information is welcome to write to the secretary of the company.

Finally, I should note for the benefit of their many friends, that our family of bald eagles returned again last season to the Lobstick area, where they were allowed to pass the summer unphotographed. Their offspring of the year before has presumably established his own household in another neighborhood, as is the way of young eagles.



William D. Mulholland,  
President and Chief Executive Officer

Montreal, March 14, 1972



### AND WHOLLY OWNED SUBSIDIARIES

#### Consolidated Balance Sheet as at December 31, 1971

1971

1970

#### Assets

##### Current assets:

Cash and short-term deposits . . . . .	\$ 5,013,674	\$ 6,680,249
Marketable securities, at cost . . . . .	—	197,660
Accounts receivable . . . . .	1,491,802	1,529,692
Supplies and prepaid expenses . . . . .	346,700	482,674
Total current assets . . . . .	<u>6,852,176</u>	<u>8,890,275</u>

Investment in Churchill Falls (Labrador) Corporation Limited (notes 2 & 3) .	50,975,363	50,680,426
Land, buildings and equipment, at cost less \$4,215,030		
accumulated depreciation . . . . .	1,072,454	1,668,890
Preproduction expenditures less \$3,299,585 written off . . . . .	178,174	782,504
Expenditures on Lower Churchill River project . . . . .	3,024,484	2,656,229
Expenditures on natural resources, rights, concessions		
and surveys less amounts written off . . . . .	429,197	120,787
Organization and financing expenses . . . . .	2,427,256	2,427,246
	<u>\$64,959,104</u>	<u>\$67,226,357</u>

#### Liabilities and Shareholders' Equity

##### Current liabilities:

Accounts payable and accrued liabilities		
(including \$36,705 to unconsolidated subsidiary) . . . . .	\$ 606,556	\$ 738,324
Mining taxes payable . . . . .	—	88,500
Total current liabilities . . . . .	<u>606,556</u>	<u>826,824</u>

##### Shareholders' equity:

Capital stock (note 4) . . . . .	66,382,273	66,152,221
Retained earnings [deficit] (note 3) . . . . .	[2,029,725]	247,312
	<u>64,352,548</u>	<u>66,399,533</u>

##### Commitments and contingent liabilities (note 5)

	<u>\$64,959,104</u>	<u>\$67,226,357</u>
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The accompanying notes are an integral part of the above consolidated balance sheet and should be read in conjunction therewith.

##### On behalf of the Board:

William D. Mulholland, Director

Harry W. Macdonell, Director



# Brinco

## LIMITED

### AND WHOLLY OWNED SUBSIDIARIES

#### Consolidated Statement of Income and Retained Earnings for the year ended December 31, 1971

	1971	1970
Sales:		
Sales of copper concentrates (note 6) . . . . .	\$ 3,114,194	\$ 5,907,728
Other sales . . . . .	24,429	26,790
	<u>3,138,623</u>	<u>5,934,518</u>
Operating and administrative expenses (note 7) . . . . .	4,021,026	3,687,496
Depreciation and preproduction expenditures written off (note 7) . . . . .	1,464,715	1,247,672
Expenditures on natural resources, rights, concessions and surveys written off	141,770	—
Exploration expenditures . . . . .	543,815	1,551,307
Mining taxes . . . . .	—	84,697
	<u>6,171,326</u>	<u>6,571,172</u>
Operating profit [loss] for the year . . . . .	<u>[3,032,703]</u>	<u>[636,654]</u>
Income from investments . . . . .	460,729	581,274
	<u>[2,571,974]</u>	<u>[55,380]</u>
Equity in net income of unconsolidated subsidiary . . . . .	294,937	253,860
Income [loss] before income taxes and extraordinary items . . . . .	<u>[2,277,037]</u>	<u>198,480</u>
Provision for income taxes (note 8) . . . . .	—	65,788
Income [loss] before extraordinary items (note 9) . . . . .	<u>[2,277,037]</u>	<u>132,692</u>
Reduction in income taxes due to loss carried forward . . . . .	—	65,788
Net income [loss] for the year (note 9) . . . . .	<u>[2,277,037]</u>	<u>198,480</u>
Retained earnings at beginning of year . . . . .	247,312	48,832
Retained earnings [deficit] at end of year . . . . .	<u>\$[2,029,725]</u>	<u>\$ 247,312</u>

The accompanying notes are an integral part of the above consolidated statement of income and retained earnings and should be read in conjunction therewith.



AND WHOLLY OWNED SUBSIDIARIES

**Consolidated Statement of Source and Application of Funds  
for the year ended December 31, 1971**

	1971	1970
Source of funds:		
Issue of capital stock . . . . .	<u>\$ 230,052</u>	<u>\$ 789,777</u>
Application of funds:		
To current operations:		
Net loss before equity in net income of unconsolidated subsidiary . . .	2,571,974	55,380
Depreciation and preproduction expenditures written off . . . . .	[1,464,715]	[1,247,672]
Expenditures on natural resources, rights, concessions and surveys written off . . . . .	<u>[141,770]</u>	<u>—</u>
	965,489	[1,192,292]
Expenditures on Lower Churchill River project . . . . .	368,255	304,979
Expenditures on natural resources, rights, concessions and surveys . . . .	450,180	75,058
Land, buildings and equipment — net . . . . .	263,949	208,109
Organization and financing expenses . . . . .	10	—
	<u>2,047,883</u>	<u>[604,146]</u>
Increase [decrease] in working capital . . . . .	<u>\$(1,817,831)</u>	<u>\$ 1,393,923</u>

*The accompanying notes are an integral part of the above consolidated statement of source and application of funds and should be read in conjunction therewith.*



AND WHOLLY OWNED SUBSIDIARIES

**Notes to the Consolidated Financial Statements as at December 31, 1971**

(1) By Special Resolution and with approval of the Attorney General of Newfoundland, the name of the Company was changed from British Newfoundland Corporation Limited to Brinco Limited on June 30, 1971.

(2) Principles of Consolidation:

The consolidated financial statements of Brinco Limited include the accounts of its wholly owned subsidiaries British Newfoundland Exploration Limited ("Brinex") and Gull Island Power Company Limited.

The Company holds 56.96% of the issued share capital of Churchill Falls (Labrador) Corporation Limited ("Churchill Falls") and Churchill Falls in turn owns 33<sup>1</sup>/<sub>3</sub>% of the share capital of Twin Falls Power Corporation Limited which shares represent voting control of that company.

In the opinion of the directors, the assets and liabilities and operations of Churchill Falls are so dissimilar to those of the Company, that a consolidation of its accounts with those of the Company does not produce financial statements which are as meaningful and informative as the separate financial statements of the Company and Churchill Falls. The investment in Churchill Falls is, however, carried on an equity basis.

(3) Investment in Churchill Falls (Labrador) Corporation Limited:

<u>Shares at Cost</u>	<u>Company's share of income since acquisition</u>	<u>Total</u>
\$49,646,797	\$1,328,566	\$50,975,363

A proportion of the Company's shareholding in Churchill Falls is deposited under a Voting Trust Agreement between the Company and Quebec Hydro-Electric Commission.

The covenants of the debt instruments of Churchill Falls prohibit that company from paying cash dividends prior to completion of the Churchill Falls Project and place restrictions on the payment of cash dividends thereafter.

(4) Capital Stock:

(a) Common shares without nominal or par value authorized and issued as at December 31, 1971, were:

	<u>Shares</u>	<u>Amount</u>
Authorized . . . . .	25,000,000	—
Issued and fully paid . . . . .	22,964,234	\$66,382,273

(b) During the year, the following shares were issued for cash:

	<u>Shares</u>	<u>Amount</u>
Under the 1970 Stock Option Plan		
(27,000 to officers including officers who were also directors) . . .	56,749	\$ 213,497
Under options granted on October 10, 1968 . . . . .	3,500	16,555
	<u>60,249</u>	<u>\$ 230,052</u>



**AND WHOLLY OWNED SUBSIDIARIES**

(c) Options granted in 1971:

Under the Provisions of the 1970 Stock Option Plan

<u>Date of Grant</u>	<u>Option Price per Share</u>	<u>Shares to officers including officers who were also directors</u>	<u>Total Shares</u>	<u>Date of Expiry</u>
March 8, 1971	\$4.62	—	48,500	March 8, 1976
July 22, 1971	5.18	—	15,000	July 22, 1976
October 28, 1971	4.17	40,000	40,000	October 28, 1976
		<u>40,000</u>	<u>103,500</u>	

- (d) At December 31, 1971, options were outstanding on 376,084 shares (207,500 shares to officers including officers who were also directors) exercisable at prices varying from \$3.70 to \$5.18 per share for periods up to 1976.

(5) Commitments and Contingent Liabilities:

- (a) In 1953 the Government of Newfoundland and the Company entered into an agreement ("Principal Agreement") whereby the Company was granted options on extensive natural resource concessions within the Province of Newfoundland.

Under the terms of the Principal Agreement, as amended, the Company is obligated to pay to the Government of Newfoundland an annual rental equal to 8% of the consolidated net profits before income taxes (as defined) of the Company and its subsidiary companies excluding Churchill Falls, resulting from the operations of the concessions and rights granted by the Principal Agreement.

- (b) The liability of Brinex under its pension plan for past service, which was being paid by annual instalments, is now fully funded.

(6) Sales of Copper Concentrates:

Sales of copper concentrates include an amount of \$1,878,232 in respect of copper concentrates delivered during the year for which final settlement had not been received. These shipments have been valued at an estimated copper price of 40 cents per pound, less costs of smelting, refining and freight.

(7) Whales Back Mine Expenses:

A re-evaluation of the remaining copper ore reserves at the Whales Back mine carried out by Brinex during 1971, showed a significant reduction in the ore body which could be economically extracted. Based on this review, depreciation and preproduction expenditures written off for the year have been increased by \$330,000. In addition, the carrying value of mine supplies has been reduced by \$130,000 by a charge to operating expenses.

(8) Income Taxes:

Brinex claims for tax purposes exploration, depreciation and preproduction expenditures sufficient to offset income that would otherwise be taxable. At December 31, 1971, depreciation and amounts written off since the commencement of operations exceeded allowances claimed for tax purposes by \$10,046,000. In addition, the Company and Brinex have losses carried forward for income tax purposes.



## AND WHOLLY OWNED SUBSIDIARIES

### (9) Earnings per share:

	1971	1970
Income [loss] before extraordinary items . . . . .	[9.9¢]	0.6¢
Net income [loss] for the year . . . . .	[9.9¢]	0.9¢

### (10) Company Directors' and Officers' Remuneration:

	Number	Aggregate Remuneration		
		Company	Churchill Falls	Total
Directors . . . . .	21	\$35,700	\$ 20,600	\$ 56,300
Officers . . . . .	11	98,375	106,041	204,416

There were three officers who were also directors.

Four of the officers did not receive remuneration as officers from either of the above companies.

### Auditors' Report to the Shareholders

We have examined the consolidated balance sheet of Brinco Limited and wholly owned subsidiaries as of December 31, 1971, and the consolidated statements of income and retained earnings and source and application of funds for the year then ended and have obtained all the information and explanations we have required. Our examination included a general review of the accounting procedures and such tests of accounting records and other supporting evidence as we considered necessary in the circumstances.

In our opinion, and according to the best of our information and the explanations given to us and as shown by the books of the companies, these consolidated financial statements are properly drawn up so as to exhibit a true and correct view of the state of the affairs of the companies at December 31, 1971, and the results of their operations and the source and application of their funds for the year then ended, in accordance with generally accepted accounting principles applied on a basis consistent with that of the preceding year.

Peat, Marwick, Mitchell & Co.  
Chartered Accountants

Montreal, Que.  
February 2, 1972



**Balance Sheet as at December 31, 1971**

**Assets**

Current assets:

Cash and short-term deposits . . . . .	\$ 16,519,368	\$ 17,883,591
Accounts receivable (including \$364,180 from affiliates) . . . . .	3,884,620	3,912,822
Supplies and prepaid expenses . . . . .	756,794	1,316,510
Total current assets . . . . .	<u>21,160,782</u>	<u>23,112,923</u>

Investment in shares of Twin Falls Power Corporation Limited (note 1) . . . . .	2,695,613	2,676,233
Churchill Falls power project, at cost . . . . .	602,973,779	447,470,756
Less accumulated depreciation . . . . .	6,560,271	5,747,456
	<u>596,413,508</u>	<u>441,723,300</u>

Trans-Labrador road, at cost . . . . .	2,050,281	—
Spare parts and vehicles, at cost . . . . .	298,318	—
Debt discount and financing expenses . . . . .	5,325,283	4,432,318
	<u>\$627,943,785</u>	<u>\$471,944,774</u>

**Liabilities and Shareholders' Equity**

Current liabilities:

Accounts payable and accrued liabilities . . . . .	\$ 28,108,577	\$ 29,839,724
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Long-term debt (note 2) . . . . .	514,422,278	357,209,956
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Shareholders' equity:

Capital stock (note 3) . . . . .	82,899,992	82,899,992
Retained earnings (note 4) . . . . .	2,512,938	1,995,102
	<u>85,412,930</u>	<u>84,895,094</u>

Commitments and contingent liabilities (note 5)	<u>\$627,943,785</u>	<u>\$471,944,774</u>
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The accompanying notes are an integral part of the above balance sheet and should be read in conjunction therewith.

On behalf of the Board:

William D. Mulholland, Director

Yvon De Guise, Director





**Statement of Income and Retained Earnings  
for the year ended December 31, 1971**

	1971	1970
Sales of power . . . . .	\$ 92,110	\$ —
Rental of rights and facilities to subsidiary . . . . .	734,800	734,800
Gross revenue . . . . .	<u>826,910</u>	<u>734,800</u>
Horsepower royalty (note 5(b)) . . . . .	14,095	—
Newfoundland rental (note 5(b)) . . . . .	76,544	72,358
Depreciation . . . . .	812,815	734,800
	<u>903,454</u>	<u>807,158</u>
Operating profit [loss] for the year . . . . .	[76,544]	[72,358]
Equity in net income of Twin Falls Power Corporation Limited for the year	594,380	518,274
Net income for the year . . . . .	<u>517,836</u>	<u>445,916</u>
Retained earnings at beginning of year . . . . .	1,995,102	1,549,186
Retained earnings at end of year . . . . .	<u>\$ 2,512,938</u>	<u>\$ 1,995,102</u>

*The accompanying notes are an integral part of the above statement of income and retained earnings and should be read in conjunction therewith.*





**Statement of Source and Application of Funds  
for the year ended December 31, 1971**

	1971	1970
Source of funds:		
From current operations:		
Net income [loss] before equity in net income of		
Twin Falls Power Corporation Limited . . . . .	\$ [76,544]	\$ [72,358]
Depreciation . . . . .	812,815	734,800
	<u>736,271</u>	<u>662,442</u>
Reduction in funds held by trustee . . . . .	—	1,400,000
Dividends from Twin Falls Power Corporation Limited . . . . .	575,000	525,000
Issue of long-term debt:		
First Mortgage Bonds Series A . . . . .	147,187,322	160,975,468
First Mortgage Bonds Series B . . . . .	10,025,000	7,250,000
	<u>158,523,593</u>	<u>170,812,910</u>
Application of funds:		
Development of Churchill Falls power project . . . . .	155,503,023	204,899,246
Trans-Labrador road . . . . .	2,050,281	—
Spare parts and vehicles . . . . .	298,318	—
Debt discount and financing expenses . . . . .	892,965	1,250,316
	<u>158,744,587</u>	<u>206,149,562</u>
Increase [decrease] in working capital . . . . .	\$ [220,994]	\$ [35,336,652]

*The accompanying notes are an integral part of the above statement of source and application of funds and should be read in conjunction therewith.*

## Notes to the Financial Statements as at December 31, 1971

### (1) Investment in Shares of Twin Falls Power Corporation Limited:

Churchill Falls (Labrador) Corporation Limited ("Churchill Falls") holds voting control of Twin Falls Power Corporation Limited ("Twin Falls") through its ownership of all the Class A shares which carry four votes per share but these shares represent only one-third of the shareholders' interest in Twin Falls and, therefore, its assets and liabilities have not been included in Churchill Falls' financial statements. The investment in Twin Falls is, however, carried on an equity basis.

Original cost . . . . .		\$2,500,000
Equity in retained earnings at beginning of year . . . . .	\$176,233	
Equity in net income for the year . . . . .	594,380	
	<u>770,613</u>	
Dividends for the year . . . . .	575,000	195,613
		<u>\$2,695,613</u>

### (2) Long-term Debt:

	Authorized	Issued and Outstanding	
First Mortgage Bonds:			
7 <sup>3</sup> / <sub>4</sub> % Series A due December 15, 2007	\$500,000,000 (U.S.)	\$371,300,000 (U.S.)	\$385,272,278
7 <sup>7</sup> / <sub>8</sub> % Series B due December 15, 2007	50,000,000	—	29,150,000
General Mortgage Bonds:			
7 <sup>1</sup> / <sub>2</sub> % due three years after latest maturity of any First Mortgage Bonds	100,000,000		<u>100,000,000</u>
			<u>\$514,422,278</u>

The First Mortgage Bonds Series A are carried in the balance sheet at the proceeds realized in Canadian dollars.

Bond Purchase Agreements dated May 15, 1969, have been signed covering the purchase of all the authorized First Mortgage Bonds.

The First Mortgage Bonds are repayable in semi-annual instalments commencing two years after completion of the Churchill Falls power project ("Project") sufficient to retire them fully by maturity.

The Deed of Trust and Mortgage securing the General Mortgage Bonds provides for a sinking fund to be applied in redemption of the bonds, commencing after completion of the Project amounting to 2% of the balance outstanding at the commencement of each year, payable in semi-annual instalments. The General Mortgage Bonds are subordinate to the First Mortgage Bonds.

Churchill Falls has entered into an agreement dated May 15, 1969, with a consortium of Canadian banks, the terms of which provide for a credit not exceeding \$150,000,000 at any one time outstanding. No amounts may be drawn down under the agreement prior to January 1, 1972, and it is subject to certain other conditions.

### (3) Capital Stock:

Common shares without nominal or par value authorized and issued as at December 31, 1971, were:

	Shares	Amount
Authorized . . . . .	10,000,000	
Issued and fully paid . . . . .	8,759,999	\$82,899,992



There are restrictions on the issue of further capital stock without the approval of the holders of at least 75% of the outstanding common shares.

(4) Dividend Restrictions:

The covenants of the debt instruments of Churchill Falls prohibit the payment of cash dividends by Churchill Falls prior to completion of the Project and place restrictions on the payment of cash dividends thereafter.

(5) Commitments and Contingent Liabilities:

- (a) At December 31, 1971, Churchill Falls had entered into contracts related to the Project involving expenditures after that date estimated at \$80,000,000. This includes an amount based on an evaluation of outstanding claims.
- (b) Under the terms of The Churchill Falls (Labrador) Corporation Limited (Lease) Act, 1961, and amendments thereto, Churchill Falls has entered into a 99-year lease covering the water power potential of the Upper Churchill Watershed and is required to pay an annual rental of 8% of the consolidated net profits before income taxes (as defined) and an annual royalty of 50 cents per horsepower year generated (as defined).
- (c) Churchill Falls' liability under its pension plan for past service which was being paid by annual instalments is now fully funded.

(6) Income Taxes:

Churchill Falls had no income subject to tax.

(7) Power Contract:

Quebec Hydro-Electric Commission and Churchill Falls have entered into a power contract dated May 12, 1969, providing for the purchase of substantially all the power from the Project for an initial period of approximately forty years with a renewal for a further period of twenty-five years.

(8) Directors' and Officers' Remuneration:

	<u>Number</u>	<u>Aggregate Remuneration</u>
Directors . . . . .	14	\$ 19,000
Officers . . . . .	12	162,641

There were three officers who were also directors.

Five of the officers did not receive any remuneration as officers.

**Auditors' Report to the Shareholders**

We have examined the balance sheet of Churchill Falls (Labrador) Corporation Limited as at December 31, 1971, and the statements of income and retained earnings and source and application of funds for the year then ended. Our examination included a general review of the accounting procedures and such tests of accounting records and other supporting evidence as we considered necessary in the circumstances.

In our opinion, these financial statements present fairly the financial position of the company at December 31, 1971, and the results of its operations and the source and application of its funds for the year then ended, in accordance with generally accepted accounting principles applied on a basis consistent with that of the preceding year.

Peat, Marwick, Mitchell & Co.  
Chartered Accountants

Montreal, Que.  
February 2, 1972



# Report of Directors to Shareholders

## HYDRO POWER

### The Churchill Falls Development

The year just ended saw Churchill Falls (Labrador) Corporation Limited bring its first two 475 megawatt turbine-generator units into operation. The remaining nine units are in various stages of construction. By June, 1972, Unit 3 is expected to be in operation with Unit 4 to follow later in the year. The civil engineering work for Units 5 and 6 also is to be completed during the year. A major change in the 1972 construction program is the acceleration of installation of certain parts for Units 5 to 8. Also in 1972, the last water control structure will be completed, linking the Ossokmanuan Reservoir with the Smallwood Reservoir; the second of three 735 kV transmission lines to the point of delivery to Hydro-Québec will be completed and energized; and two 230 kV lines from Churchill Falls to Twin Falls will be completed. These two lines, to be ready during the summer, will enable the Churchill Falls plant to supply energy for iron ore mining operations in western Labrador from the 530 megawatts provided for use in Labrador when required.

Construction of the Churchill Falls facility was approximately 79 per cent complete at December 31, 1971. On May 1, 1972, power sales to Hydro-Québec will commence under the Power Contract and sales of approximately \$13 million are scheduled for the remainder of the year. The income from power sales, further drawdowns of First Mortgage Bonds, and the use for the first time in 1972 of the bank credit arrangements, will provide for planned capital expenditures of approximately \$100 million during 1972. While a great deal still remains to be done to complete the Project, no difficulties are foreseen at present which would bar completion of the facility on schedule.

The annual report of Churchill Falls (Labrador) Corporation Limited, which accompanies this report, contains more detailed information on the operations of that company.

### Gull Island

Gull Island is the next site for development of power on the Churchill River. Located 130 miles downstream from

Churchill Falls, Gull Island could provide 1,800 megawatts of installed capacity. On an annual basis, Gull Island would produce approximately 12 billion kilowatt-hours of energy.

In last year's annual report, a reference was made to the Canadian Government's White Paper on Tax Reform which at that time contained provisions which would have had an adverse effect on the viability of Gull Island. The Tax Reform Act did not include these detrimental provisions and Brinco is now in a position to negotiate for the sale of power and development of the Gull Island project.

Expenditures to date on this project now exceed \$3 million. Should arrangements be completed by the end of 1972, power could be available in 1977.

### British Columbia

During 1971 Brinco acquired a controlling interest in Iskut Pulpower Ltd. which holds a permit to explore the hydro-electric potential of certain areas in northwestern British Columbia. Preliminary studies indicate that there are potential power development sites in this area which would yield economic electric energy. The market for this energy will emerge as the mineral resources and the forest products of the area are developed.

## RESOURCES

### Mining

The Whales Back copper mine in Newfoundland produced disappointing results during 1971. Many circumstances, including lower metal prices, lower production, higher unit costs and the rapid depletion of the ore reserves resulted in a mine operating loss of \$1,301,000 in 1971 compared with a profit of \$1,922,000 in 1970 and a profit of \$2,283,000 in 1969. The mine will close on June 3, 1972 as ore reserves have been worked out. Some 4,182,000 tons of copper ore, containing less than 1 per cent copper, were milled since inception to December 31, 1971. The average grade in 1971 was 0.78 per cent copper. Extensive exploration on and adjacent to the mine has failed to locate ore reserves which might prolong these mining operations.

*(continued on page 22)*

Right: Commissioning engineers checked controls and instruments in the turbine pit during preliminary mechanical and electrical testing of the first two Churchill Falls turbine-generator units prior to the initial commercial delivery of power to Hydro-Québec in December, 1971.

(Bottom) Map shows the location of the trans-Labrador road system. In 1971 CFLCo constructed a 66-mile section to complete the road which now links Esker on the Quebec North Shore & Labrador Railway with the tidewater port of Goose Bay.



During its period of operation, Whales Back has been one of the lowest cost underground copper mines in Canada. This is largely due to the efforts of the loyal and efficient staff who have worked this mine since operations commenced in 1965.

Operations will be continued until June 3 to give the maximum possible time for the mine's supervisory, hourly-rated personnel and development contractor's staff to relocate. Staff and hourly-rated personnel still employed on June 3 will receive severance pay upon closure of the mine and approximately 35 men will be employed on salvage operations for approximately three months following the closure. The company has assigned a placement officer to assist personnel in finding employment elsewhere, and is cooperating with government authorities in assisting these men to search for new employment.

### Exploration

In the Province of Newfoundland and Labrador, work by British Newfoundland Exploration Limited (Brinex) was concentrated in three areas in central Labrador: Moran Lake, Seal Lake and Makkovik.







At Moran Lake, Brinex undertook a program of geological, geophysical and geochemical surveys following up the information provided by the extensive airborne geophysical surveys of 1970. Late in the year, exploratory diamond drilling was done on one of the anomalous areas where copper mineralization had been found on the surface. The drill holes intersected extensive sulphide mineralization but little copper. During 1972, the investigation of other anomalous areas in this region is planned.

A joint venture with Bethlehem Steel Corporation was undertaken on the central part of the Seal Lake basin, where copper mineralization occurs in a strata-bound form. An exploration drilling program was started in this area early in 1972.

Uranium exploration continued in the Makkovik area, the cost of which was financed by Brinex's joint venture partner, Urangesellschaft of West Germany. The sources of anomalous concentrations of radio-active boulders in the overburden in the vicinity of the known Michelin deposit were investigated by a limited program of diamond drilling. Bedrock mineralization of ore grade and width

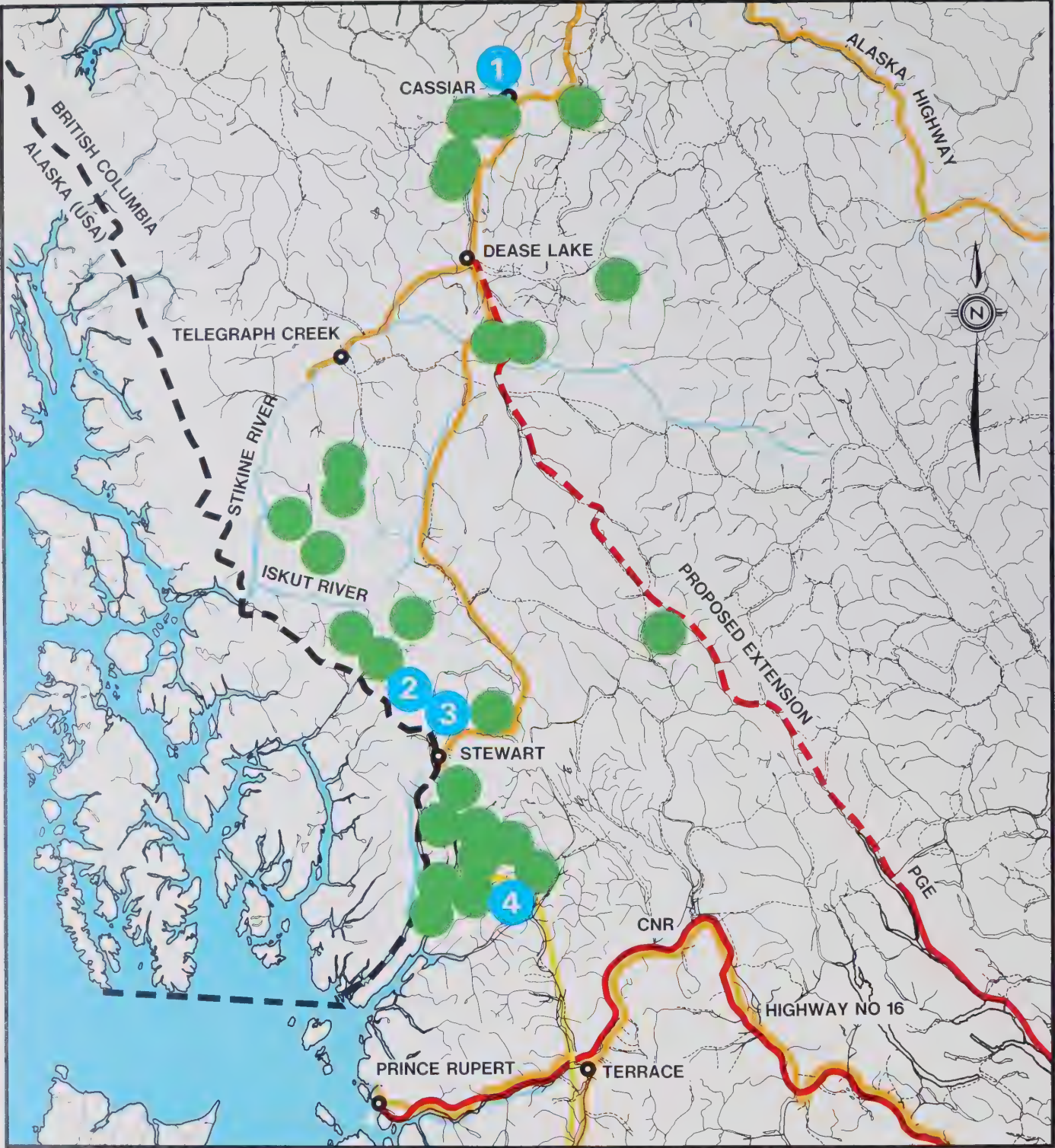
*(continued on page 25)*



*Top: In the Churchill Falls switchyard, power is transformed from 230 kV to 735 kV before it is transmitted to the Hydro-Québec network.*

*Bottom: Gull Island Camp, on the lower Churchill River, 130 miles downstream from the Churchill Falls power development.*





**Legend**

- International boundary
- Railroad
- - - Proposed railroad
- Highway

**Producing mines:**

- 1 CASSIAR ASBESTOS CORP. LTD.
- 2 GRANDUC OPERATING CO.
- 3 SILBACK PREMIER MINES LTD.
- 4 B.C. MOLYBDENUM LTD.

**Potential mining development**

**Transmission lines**

0 50 100

Scale in miles

Map showing producing and prospective mines in northwestern British Columbia indicates potential need for power in the area.





Scenic grandeur is typical of the region of northwestern British Columbia where Brinco is investigating hydro-electric potential.

was intersected but the tonnages outlined do not significantly increase the estimated reserves in the area.

On the Island of Newfoundland, a limited program of field work was carried out. As well, a joint venture agreement was signed with Noranda Exploration Co. Ltd. for exploration by Noranda of a 400-square-mile area within Brinex's Halls Bay concession. An airborne geophysical survey was flown over this area and the results are now being studied.

Brinex and Golden Eagle Canada Limited have entered into a joint venture with Mobil Oil Canada Limited for seismic exploration by Mobil Oil of the oil and gas potential in St. George's Bay, western Newfoundland. Mobil Oil has the right to drill in the area during the next two years.

Close cooperation is being maintained with staff at Memorial University of Newfoundland where research programs are being conducted that could ultimately confirm some new interpretations of the fundamental geology of the island. Brinex is also cooperating with federal and

provincial government departments working on programs to develop the mining industry in Newfoundland.

The year 1971 marked the first exploration effort by Brinex outside its concession areas in Newfoundland and Labrador. A number of interesting prospects were examined in areas of western Canada and the United States. This work is expected to continue.

### **Nuclear**

During the year, Brinco continued to pursue a program directed to the establishment in Canada of a facility for the isotopic enrichment of uranium, provided such a project proves to be economically feasible — as we expect it will.

By approximately 1980, demand for enriched uranium is forecast to exceed the production capabilities planned at present. The United States Atomic Energy Commission is currently the principal supplier of enrichment services to the western world. In July 1971, the commission advised a number of countries, including Canada, that it

*(continued on page 26)*

*Right: Helicopters provide the best means of transportation to most Brinex exploration camps.*

*Facing page: In Labrador, work by Brinex was concentrated in three areas: Moran Lake, Seal Lake and Makkovik. Drilling (top left), surveying (bottom left) and core logging (bottom right) were carried out during the year. Last fall, the M/V J. E. Jonsson (top right) conducted offshore seismic work in St. George's Bay, western Newfoundland, where Brinco holds oil and gas exploration rights. To conduct the probe, Brinex and Golden Eagle Canada Limited entered into a joint venture agreement with Mobil Oil Canada Limited which has the right to drill in the area during the next two years.*



was prepared to discuss with these countries the means whereby U.S. classified enrichment technology might be made available to them. These discussions have commenced.

Inasmuch as a period of some eight years will be required from initiation to the start-up of commercial operation, Canadian governmental action to establish fundamental policy in this area is increasingly urgent if further progress is to be made.

A uranium enrichment facility in Canada devoted to peaceful uses provides a unique opportunity to enhance Canada's position among the nations of the world. The successful creation of such a facility, apart from the employment and many other benefits to the economy which will result, requires an unusual degree of international cooperation and affords for Canada an opportunity for singular statesmanship.

#### **CORPORATE ORGANIZATION**

Recognizing the name by which the company has come to be widely known, the shareholders approved a change in the corporate name to "Brinco Limited". This change became effective in July.





Several changes in the company's officers took place during the year:

Harry W. Macdonell was elected a director and was appointed executive vice-president of the company; Norbert M. Peters was appointed general counsel; William J. Mandzia was appointed assistant secretary.

\* \* \*

To the men and women who have built Churchill Falls and to the staff of the Brinco Group of Companies who have made these successes possible and who now are helping plan for the future, your directors express, on your behalf as well as on their own, sincere appreciation.

*R. D. Mulholland*

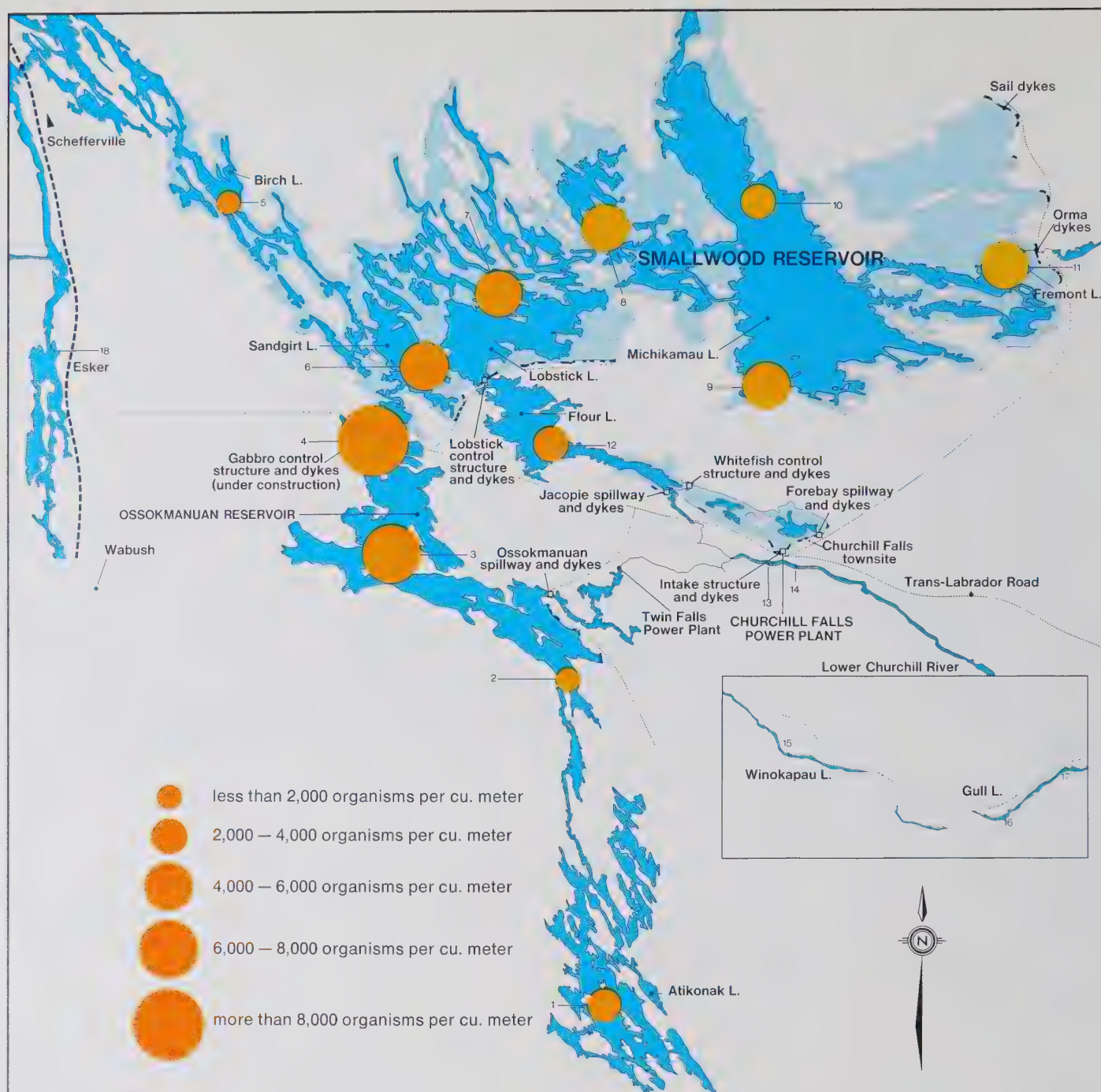
Robert D. Mulholland  
Chairman

*W. D. Mulholland*

William D. Mulholland  
President

Montreal, March 14, 1972





## Population density of zooplankton

The map above illustrates the population density of zooplankton in the reservoir area of the Churchill Falls power development. Zooplankton is the animal portion of the marine organisms that drift and float with currents, unable to influence their own course. Together with phytoplankton — the plant portion of the plankton family — it constitutes an important link in the aquatic food chain.

At the time of the survey which provided data for the map, the only area affected by flooding was the Ossokmanuan Reservoir where water sampling stations 3 and 4 (out of 18 stations) are located. It is quite apparent from the size of the colored circles that this area, flooded 10 years ago, has been (and might still be) going through a period of increased productivity. This is not uncommon after terrestrial vegetation is inundated: as nutrients are released from the submerged soil and plant life, the biomass of phytoplankton increases and this in turn causes the zooplankton population to thrive.

The larger zooplankton population found in the Ossokmanuan Reservoir is indicative of what is in store for the newly-flooded expanse of the Smallwood Reservoir, where comparable conditions exist. As further flooding occurs, the overall productivity of the reservoir is due to improve. Thus, with higher mineral and nutrient content, the report of the survey concludes, the volume and concentration of planktons should increase and larger fish populations should be expected.

*Facing page:* Typical of sub-Arctic growth is this display of Labrador flora. Depicted here are various lichens and caribou moss clinging to rock; blueberry and willow bushes; browning Labrador tea and tamarack with black spruce in the background.







The construction and operation of the 7,000,000 horsepower Churchill Falls hydro-electric development will naturally have some effect upon the environment of central Labrador. Water courses have been altered, and reservoirs totalling 2,500 square miles in area have been created where once scrub spruce and boulder fields alternated with hundreds of lakes, small ponds and marshes.

The effects of unplanned, uncontrolled change can sometimes be surprising and at their worst even harmful.

From the early days of the project Brinco Limited and its subsidiary, Churchill Falls (Labrador) Corporation Limited, have sought in various ways to identify and assess the consequences of project construction upon the area, as a prelude to the development of programs for avoiding or minimizing any unnecessary adverse impact.

One of the first steps was to engage the consulting engineering firm of H. G. Acres & Company Limited to study and report on the downstream effects of flow modifications as a result of operation of the Churchill Falls power development. Not surprisingly, the principal conclusion reached was that by regulating the Churchill River's flow, the wide seasonal variations in water levels will be greatly moderated; in a normal year, the unregulated peak flow may exceed 17 times the flow during periods of low water. In all likelihood, a long-standing problem of erosion of the river banks at Happy Valley will be ameliorated, benefitting Churchill Falls' tidewater neighbors.

A more complex situation, involving the reduced flow of the Naskaupi River, was identified at North West River. There, it was thought that a possibility existed at certain periods of the year, depending upon the interaction of river flows and seasonal tidal cycles, of a slight increase in the salinity of Little Lake, a tidal pond. In this event a possible interaction with the water table in adjacent shore areas was foreseen.

Accordingly, Tremblay, Héroux et Associés, consulting engineers, were retained to make a more detailed study. This firm measured water velocity at varying intervals of the tidal cycle, and conducted chemical and physical analyses of water at Lake Melville, Grand Lake and Little Lake. All active wells and local reticulation systems were put under surveillance. While no untoward changes have been noted to date, plans for remedial action, including identification of alternate sources of water, have been drawn up so that any developing problems can be dealt with promptly.

The larger of the two reservoirs, the Smallwood Reservoir, will be the third largest man-made lake in the world at 2,200 square miles. Of this total area, about 1,000 square miles were originally covered by water. The remaining 1,200 square miles is still a sizable area to be inundated and one of the first questions to arise is whether any irreparable harm will be done in the process.



A number of different possible effects of inundation have been examined. One of the first was the potential seismic effect. As is well known, in other parts of the world evidence has been developed linking reservoir flooding with subsequent seismic events. The investigation of this possibility in connection with the creation of the Smallwood Reservoir in Labrador dealt with such factors as the seismic potential of the region, the existence of major fault zones, maximum loading and so on. The conclusion reached was that the reservoir would not represent a hazard in this respect.

The possible existence of mineral resources in the area was anticipated and steps were taken to provide assurances that this was unlikely. These steps included the use of modern techniques of area exploration, examination by staff geologists of bedrock exposed to view by construction activities and laboratory analysis of water, soil and rock samples taken from the project area. However, these investigations have failed to reveal the presence of any economically viable, or even potentially viable, mineralization in the flooded area.

While examination of the reservoir area long ago led to the conclusion that there was no timber of value to be destroyed, this conclusion was subsequently confirmed by a formal study carried out under the direction of Dr. Denes Bajzak of Memorial University, St. John's, Newfoundland. Dr. Bajzak was commissioned to carry out a detailed program of mapping the type and density of forest cover in the Smallwood Reservoir area. The survey made use of modern techniques of aerial photo interpretation, verified by ground checks. It revealed that (exclusive of the portion already covered by water) only a relatively insignificant two per cent of the flooded area contains trees measuring over 30 feet high with a crown density greater than 60 per cent. The balance of the flooded land area consists of open woods — 65 per cent; barren land — 4 per cent; burned-over areas — 9 per cent; and bog — 20 per cent.



Early in 1970, work was begun by Sheppard T. Powell Associates (Canada) Limited, a firm specializing in the management of water resources. They were engaged to carry out a comprehensive study encompassing biological, physical and chemical parameters of the reservoir area, in order to provide accurate, thorough base line data against which later data, collected and analyzed as part of a long-term program of study, could be compared in order to identify and assess environmental changes which might be attributable to flooding.

Well before inundation commenced, 18 water sampling stations were established at strategic locations in and around Churchill Falls' two reservoirs—the Ossokmanuan Reservoir which has been in existence for 10 years, and the larger Smallwood Reservoir in which water impoundment began last summer — and at a control point removed from the reservoir area.

Water samples collected regularly by helicopter from these stations were analyzed, correlated and incorporated into a base line report which now constitutes an invaluable reference for continuing ecological evaluation. In all, some 18 chemical and physical parameters have been



monitored and are available for comparison with subsequent observations to be conducted over a number of years.

Largely because of the inclusion of the existing Ossokmanuan Reservoir in the data base, some tentative conclusions are possible at this early stage of the investigation. There is considerable evidence to suggest that flooding tends to increase, at least for a period of years, both the volume and concentration of micro-organisms beneficial to fish life. An example of such a beneficial change is provided by the Ossokmanuan Reservoir where conditions, except those due to the passage of time, are similar to those at the nearby Smallwood Reservoir. From analysis of water samples it has been determined that the Ossokmanuan Reservoir, filled 10 years ago to supply water to the Twin Falls plant, contains not only larger populations of phytoplankton and zooplankton but also greater diversity, as many additional tychoplanktonic species entered the reservoir from inundated bogs and rivers.

Accordingly, the Sheppard T. Powell report states that flooding should result in "increasing productivity and larger fish populations . . . These alterations of the ecology should be looked upon as beneficial."



Any flooding of large land areas is likely to create problems for wildlife and the Smallwood Reservoir will be no exception in this respect. Although the reservoir could be filled in one year, impoundment is being scheduled to take place over a three-year period in order to ease somewhat the problems of adjustment. At the same time closer observation of the habitat requirements, capacity to colonize and animal mobility of different species will be possible.

Professor Allen Keast of Queen's University, Kingston, Ont. was asked to initiate a survey of the various mammal and bird species ranging from bears to sparrows and mice. In his exploratory survey Professor Keast covered the reservoir area by helicopter, float-plane and ground transport to gather base line data for future studies of the long-term animal response to the changed conditions.

As a result of Professor Keast's work, another study — this time a small animal trapping survey in both winter and summer — was undertaken by Dr. Brock Fenton of Carleton University, Ottawa, Ont. Dr. Fenton concluded that some crowding will result because of reduced land areas and that non-critical losses will occur among small animal species. Larger animals, such as black bears, should encounter no difficulty in relocating. In any case, surveillance over the flooded areas will be maintained by the company and men and equipment, including a 40-foot Cape Islander boat, are available to rescue or assist any large animals which appear to be encountering difficulty in relocating.

The company has cooperated with federal and provincial wildlife and fisheries services, and in some cases, has provided logistical support for investigations conducted



by officers of these organizations. Studies into the nesting habitats of ducks and geese, and calving areas of caribou herds, are currently in progress.

To the extent that facilities have permitted, ecological investigations proposed by outside agencies have been facilitated by the company. These have included studies of vegetation in the spray zone of the Churchill Falls, of tree and plant life in the project area and of black flies and mosquitoes as vectors of bird malarias.

The company, as a matter of policy, seeks professional advice when looking into the scientific merit of proposed studies and the sponsorship and professional qualifications of researchers who request assistance in order to conduct scientific and ecological investigations in the project area. Requests for financial support from the company must additionally meet the strict test of relevancy to the company's operations. We are not, after all, an organization dedicated to scientific research for its own sake, meritorious as such activity may be. Nevertheless, while it may not be appropriate to support financially specific research activities, the company has cooperated with recognized organizations in the conduct of useful, well-conceived research programs which do not interfere with essential operations.

The policy of the company can be stated very succinctly. It is:

- To identify and assess, to the best of our ability, any potential materially adverse impact upon the natural environment likely to result from the Churchill Falls development or other activities of the company.
- To avoid or to minimize, to the extent practicable, any such adverse impact.
- To cooperate insofar as it is practicable to do so with recognized organizations and individuals in the interests of expanding knowledge of the functioning of ecological systems and the impact upon them of man's activities.



It is, of course, unrealistic to expect perfect performance in attempting to carry out the foregoing policies and we cannot hold out such a promise. We shall doubtless make mistakes but hopefully we shall learn from them and translate that knowledge into improved performance as time goes on.

